

HISTORY OF FARMING IN ONTARIO

BY

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CANADA AND ITS PROVINCES

A HISTORY OF THE CANADIAN PEOPLE
AND THEIR INSTITUTIONS
BY ONE HUNDRED ASSOCIATES

EDITED BY

ADAM SHORTT AND A. G. DOUGHTY

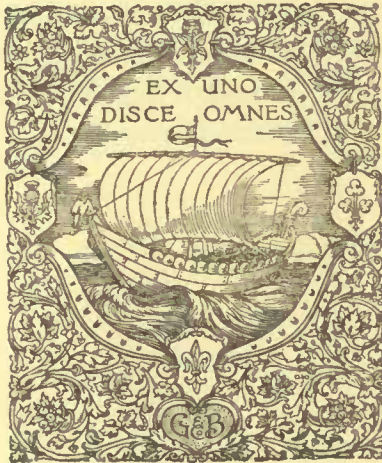
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C.M.G.



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Adam Shortt and Arthur G. Doughty,
General Editors

HISTORY OF FARMING

THE LAND AND THE PEOPLE

FROM the most southern point of Ontario on Lake Erie, near the 42nd parallel of latitude, to Moose Factory on James Bay, the distance is about 750 miles. From the eastern boundary on the Ottawa and St Lawrence Rivers to Kenora at the Manitoba boundary, the distance is about 1000 miles. The area lying within these extremes is about 220,000 square miles. In 1912 a northern addition of over 100,000 square miles was made to the surface area of the province, but it is doubtful whether the agricultural lands will thereby be increased. Of this large area about 25,000,000 acres are occupied and assessed, including farm lands and town and city sites. It will be seen, therefore, that only a small fraction of the province has, as yet, been occupied. Practically all the occupied area lies south of a line drawn through Montreal, Ottawa, and Sault Ste Marie, and it forms part of the great productive zone of the continent.

The next point to be noted is the irregularity of the boundary-line, the greater portion of which is water—Lakes Superior, Huron, Erie, Ontario, the St Lawrence River, the Ottawa River, James Bay, and Hudson Bay. The modifying effect of great bodies of water must be considered in studying the agricultural possibilities of Ontario.

Across this great area of irregular outline there passes a branch of the Archæan rocks running in a north-western direction and forming a watershed, which turns some of the streams to Hudson Bay and the others to the St Lawrence system. An undulating surface has resulted, more or less filled with lakes, and almost lavishly supplied with streams, which are of prime importance for agricultural life and of

incalculable value for commercial purposes. To these old rocks which form the backbone of the province may be traced the origin of the large stretches of rich soil with which the province abounds.

An examination of the map, and even a limited knowledge of the geological history of the province, will lead to the conclusion that in Ontario there must be a wide range in the nature and composition of the soils and a great variety in the climatic conditions. These conditions exist, and they result in a varied natural production. In the extreme south-western section plants of a semi-tropical nature were to be found in the early days in luxurious growth; while in the extreme north, spruce, somewhat stunted in size and toughened in fibre, are still to be found in vast forests.

It is with the southern section, that lying south of the Laurentian rocks, that our story is mainly concerned, for the occupation and exploitation of the northland is a matter only of recent date. Nature provided conditions for a diversified agriculture. It is to such a land that for over a hundred years people of different nationalities, with their varied trainings and inclinations, have been coming to make their homes. We may expect, therefore, to find a great diversity in the agricultural growth of various sections, due partly to the variety of natural conditions and partly to the varied agricultural training of the settlers in their homelands.

EARLY SETTLEMENT, 1783-1816

Originally this province was covered with forest, varied and extensive, and was valued only for its game. The hunter and trapper was the pioneer. To protect and assist him, fortified posts were constructed at commanding points along the great waterways. In the immediate vicinity of these posts agriculture, crude in its nature and restricted in its area, had its beginning.

It was into this wooded wilderness that the United Empire Loyalists, numbering in all approximately ten thousand people, came in the latter part of the eighteenth century.¹

¹ See 'Pioneer Settlements' in this section.

They were a people of varied origins—Highland Scottish, German, Dutch, Irish Palatine, French Huguenot, English. Most of them had lived on farms in New York State, and therefore brought with them some knowledge and experience that stood them in good stead in their arduous work of making new homes in a land that was heavily wooded. In the year 1783 prospectors were sent into Western Quebec, the region lying west of the Ottawa River, and selections were made for them in four districts—along the St Lawrence, opposite Fort Oswegatchie; around the Bay of Quinte, above Fort Cataragui; in the Niagara peninsula, opposite Fort Niagara; and in the south-western section, within reach of Fort Detroit. Two reasons determined these locations; first, the necessity of being located on the water-front, as lake and river were the only highways available; and, secondly, the advisability of being within the protection of a fortified post. The dependence of the settlers upon the military will be realized when we remember that they had neither implements nor seed grain. In fact, they were dependent at first upon the government stores for their food. It is difficult at the present time to realize the hardships and appreciate the conditions under which these United Empire Loyalist settlers began life in the forest of 1784.

Having been assigned their lots and supplied with a few implements, they began their work of making small clearings and the erection of rude log-houses and barns. Among the stumps they sowed the small quantities of wheat, oats, and potatoes that were furnished from the government stores. Cattle were for many years few in number, and the settler, to supply his family with food and clothing, was compelled to add hunting and trapping to his occupation of felling the trees.

Gradually the clearings became larger and the area sown increased in size. The trails were improved and took on the semblance of roads, but the waterways continued to be the principal avenues of communication. In each of the four districts the government erected mills to grind the grain for the settlers. These were known as the King's Mills. Water-power mills were located near Kingston, at Gananoque, at

Napanee, and on the Niagara River. The mill on the Detroit was run by wind power. An important event in the early years was when the head of the family set out for the mill with his bag of wheat on his back or in his canoe, and returned in two or three days, perhaps in a week, with a small supply of flour. In the early days there was no wheat for export. The question then may be asked, was there anything to market? Yes; as the development went on, the settlers found a market for two surplus products, timber and potash. The larger pine trees were hewn into timber and floated down the streams to some convenient point where they were collected into rafts, which were taken down the St Lawrence to Montreal and Quebec. Black salt or crude potash was obtained by concentrating the ashes that resulted from burning the brush and trees that were not suitable for timber.

For the first thirty years of the new settlements the chief concern of the people was the clearing of their land, the increasing of their field crops, and the improving of their homes and furnishings. It was slow going, and had it not been for government assistance, progress, and even maintenance of life, would have been impossible. That was the heroic age of Upper Canada, the period of foundation-laying in the province. Farming was the main occupation, and men, women, and children shared the burdens in the forest, in the field, and in the home. Roads were few and poorly built, except the three great military roads planned by Lieutenant-Governor Simcoe running east, west, and north from the town of York. Social intercourse was of a limited nature. Here and there a school was formed when a competent teacher could be secured. Church services were held once a month, on which occasions the missionary preacher rode into the district on horseback. Perhaps once or twice in the summer the weary postman, with his pack on his back, arrived at the isolated farmhouse to leave a letter, on which heavy toll had to be collected.

Progress was slow in those days, but after thirty years fair hope of an agricultural country was beginning to dawn upon the people when the War of 1812 broke out. By this time the population of the province had increased to about eighty thousand. During this first thirty years very little

had been done in the way of stimulating public interest in agricultural work. Conditions were not favourable to organization. The 'town meeting' was concerned mainly with the question of the height of fences and regulations as to stock running at large. One attempt, however, was made which should be noted. Lieutenant-Governor Simcoe took charge of affairs early in 1792, and, immediately after the close of the first session of the legislature at Newark (Niagara) in the autumn of that year, organized an agricultural society at the headquarters which met occasionally to discuss agricultural questions. There are no records to show whether social intercourse or practical agricultural matters formed the main business. The struggle for existence was too exacting and the conditions were not yet favourable for organization to advance general agricultural matters.

When the War of 1812 broke out the clearings of the original settlers had been extended, and some of the loyalists still lived, grown grey with time and hardened by the rough life of the backwoods. Their sons, many of whom had faint recollection of their early homes across the line, had grown up in an atmosphere of strictest loyalty to the British crown, and had put in long years in clearing the farms on which they lived and adding such comforts to their houses, that to them, perhaps as to no other generation, their homes meant everything in life. The summons came to help to defend those homes and their province. For three years the agricultural growth received a severe check. Fathers and sons took their turn in going to the front. The cultivation of the fields, the sowing and the harvesting of the crops, fell largely to the lot of the mothers and the daughters left at home. But they were equal to it. In those days the women were trained to help in the work of the fields. They did men's work willingly and well. In many cases they had to continue their heroic work after the close of the war, until their surviving boys were grown to years of manhood, for many husbands and sons went to the front never to return.

A PERIOD OF EXPANSION, 1816-46

The close of the war saw a province that had been checked at a time of vigorous growth now more or less impoverished, and, in some sections, devastated. This was, however, but the gloomy outlook before a period of rapid expansion. In 1816, on the close of the Napoleonic wars in Europe, large numbers of troops were disbanded, and for these new homes and new occupations had to be found. Then began the first emigration from Britain overseas to Upper Canada. All over the British Isles little groups were forming of old soldiers reunited to their families. A few household furnishings were packed, a supply of provisions laid in, a sailing vessel chartered, and the trek began across the Atlantic. The emigrants sailed from many ports of England, Scotland, and Ireland. Sometimes the trip was made in three or four weeks; but often, through contrary winds or rough weather, three or four months passed before the vessel sailed up the St Lawrence and landed the newcomers at Montreal. Hardly half of their difficulties were then overcome or half of their dangers passed. If they were to find their new locations by land, they must walk or travel by slow ox-cart; if they journeyed by water, they must make their way up the St Lawrence by open boat, surmounting the many rapids in succession, poling the boats, pulling against the stream, at times helping to carry heavy loads over the portages. Their new homes in the backwoods were in townships in the rear of those settled by the loyalists, or in unoccupied areas lying on the lake-fronts between the four districts referred to as having been taken up by the loyalists. Then began the settlements along the north shore of Lake Ontario and of Lake Erie, and the population moved forward steadily. In 1816 the total population of the province was approximately 100,000; by 1826, according to returns made to the government, it had increased to 166,000; in 1836 it was 374,000, and in 1841 it was 456,000. The great majority of these people, of course, lived upon the land, the towns being comparatively small, and the villages were composed largely of people engaged in agricultural work.

This peaceful British invasion contributed a new element to the province and added still further to the variety of the people. In one township could be found a group of English settlers, most of whom came from a southern county of England, near by a township peopled by Scottish Lowlanders, and not far away a colony of north of Ireland farmers, or perhaps a settlement composed entirely of people from the vicinity of Cork or Limerick.

These British settlers brought new lines of life, new plans for houses and barns, new methods of cultivation, new varieties of seed, and, what was perhaps of most influence upon the agricultural life of the province, new kinds of live stock. Even to this day can be seen traces of the differences in construction of buildings introduced by the different nationalities that came as pioneers into the various sections of the province—the French Canadian constructed his buildings with long, steep roofs; the Englishman followed his home plan of many small, low outbuildings with doors somewhat rounded at the top; the German and Dutch settler built big barns with their capacious mows. These latter have become the type now generally followed, the main improvement in later years being the raising of the frames upon stone foundations so as to provide accommodation for live stock in the basement. It would be interesting and profitable to study carefully the different localities to determine what elements have contributed to the peculiar agricultural characteristics of the present day. In this connection the language also might be investigated. For instance, to the early Dutch farmers of Upper Canada we owe such common words as 'stoop,' 'bush,' 'boss,' 'span.' To the early British settler these were foreign words. When the oversea settlers came up the St Lawrence they were transported from Montreal either by 'bateau' or by 'Durham boat.'¹

Special reference must be made to the live stock introduced by the British settlers. This was one of the most important elements in the expansion and permanent development of the agriculture of the province. The British Isles

¹ See 'Shipping and Canals' in section v. pp. 489-90.

have long been noted for their pure-bred stock. In no other part of the world have so many varieties been originated and improved. In horses, there are the Clydesdale, the Shire, the Thoroughbred, and the Hackney; in cattle, Shorthorns, Herefords, Ayrshires, Devon, and the dairy breeds of Jersey and Guernsey; in sheep, Southdowns, Shropshires, Leicesters; in swine, Berkshires and Yorkshires. Many other breeds might be added to these. Poultry and dogs also might be referred to. The Britisher has been noted for his love of live stock. He has been trained to their care, his agricultural methods have been ordered to provide food suitable for their wants, and he has been careful to observe the lines of breeding so as to improve their quality. In the earliest period of the settlement of the province live stock was not numerous and the quality was not of the best. Whatever was to be found on the farms came mainly from the United States and was of inferior type. The means of bringing in horses, cattle, and sheep were limited. The result was that field work at that time was largely done by hand labour. Hunting and fishing helped to supply the table with the food that to-day we obtain from the butcher. When the Britisher came across the Atlantic he brought to Upper Canada his love for live stock and his knowledge how to breed and care for the same. The result was seen in the rapid increase in the number of horses, cattle, sheep, and swine, and the placing of the agriculture of the province on a firm basis for future growth.

By 1830 the population had grown to about 213,000, practically all located on the land. In that year there were only five towns of 1000 or over: namely, Kingston, 3587; York (Toronto), 2860; London, (including the township), 2415; Hamilton (including the township), 2013; and Brockville, 1130. The returns to the government show that of the 4,018,385 acres occupied 773,727 were under cultivation. On the farms were to be found 30,776 horses, 33,517 oxen, 80,892 milch cows, and 32,537 young cattle. It is interesting to note that oxen, so useful in clearing land and in doing heavy work, were more numerous than horses. Oxen were hardier than horses; they could forage for them-

selves and live on rough food, and when disabled could be converted into food. They thus played a very important part in the pioneer life. There were no improved farm implements in those days: the plough, the spade, the hoe, the fork, the sickle, the hook, the cradle, and the rake—implements that had been the husbandman's equipment for centuries—completed the list. With these the farmer cultivated his lands and gathered his crops. With two stout hickory poles, joined together at the end with tough leather thongs, a flail was made with which he threshed out his grain on the floor of his barn.

The earliest pioneers raised some flax, and from the fibre made coarse linen fabrics, supplementing these by skins of wild animals and the hides of cattle. With the introduction of sheep by the British settlers wool became an important product, and homespun garments provided additional clothing for all the members of the family. Seeds of various fruit trees were planted, and by 1830 the products of these seedlings supplemented the wild plums and cherries of the woods and the wild raspberries that sprang up in abundance in the clearings and slashes. By this time every farm had one or more milch cows and the farmer's table was supplied with fresh milk, butter, and home-made cheese. As the first half-century of the province was drawing to its close, some of the comforts of home life began to be realized by the farming community. The isolation of the former period disappeared as roads of communication were opened up and extended.

Here and there societies were formed for the exhibition of the products of the farm and for friendly competitions. So important were these societies becoming in the life of the whole community that in 1830 the government gave them recognition and provided an annual grant to assist them in their work. This is an important event in agricultural history, for it marks the beginning of government assistance to the agricultural industry. Between 1820 and 1830 probably not more than half a dozen agricultural societies were organized. Some records of such were preserved at York, Kingston, and in the Newcastle district. From the record of the County of Northumberland Agricultural Society it is

learned that its first show was held in the public square of the village of Colborne on October 19, 1828, when premiums were awarded amounting in all to seventy-seven dollars. There were fourteen prizes for live stock, two prizes for cheese, two for field rollers, and two for essays on the culture of wheat. The first prize essay, for which the winner received five dollars, was printed for distribution. The prize list was limited in range, but it shows how this new settlement, formed largely by British settlers since 1816, was giving particular attention to the encouragement of live stock. A short quotation from the prize essay as to the best method of clearing the land for wheat should be found of interest.

As a great part of our County is yet in a wilderness state and quite a share of the wheat brought to our markets is reared on new land, I deem it important that our enterprising young men who are clearing away the forest should know how to profit by their hard labor. Let the underwood be cut in the autumn before the leaves fall, and the large timber in the winter or early in the spring. This will insure a good burn, which is the first thing requisite for a good crop. Do your logging in the month of June, and if you wish to make money, do it before you burn your brush and save the ashes; these will more than half pay you for clearing the land: and by burning at this season you will attract a drove of cattle about you that will destroy all sprouts which may be growing; do not leave more than four trees on an acre and girdle these in the full moon of March and they will never leaf again; thus you may have your land prepared for the seed before harvest.

The act of 1830 provided a grant of £100 for a society in each district, upon condition that the members subscribed and paid in at least £50, and in the case of a society being organized in each county the amount was to be equally divided among the societies. The condition of making the grant was set forth in the act as follows: 'When any Agricultural Society, for the purpose of importing valuable live stock, grain, grass seeds, useful implements or whatever else might conduce to the improvement of agriculture in this Province,' etc.

As a result of this substantial assistance by the government, agricultural societies increased in number, and their influence, in assisting in the improvement of the live stock and the bringing of new implements to the attention of farmers, was most marked.

Horses, sheep, and milch cows increased rapidly. Pure-bred cattle now began to receive some attention. The first record of importation is the bringing of a Shorthorn bull and a cow from New York State in 1831 by Robert Arnold of St Catharines. In 1833 Rowland Wingfield, an Englishman farming near Guelph, brought a small herd of choice animals across the ocean, landed them at Montreal, took them to Hamilton by way of the Ottawa River, the Rideau Canal, and Lake Ontario, and then drove them on foot to Wellington County. The Hon. Adam Fergusson of Woodhill followed two or three years later with a similar importation.

The first Ayrshire cattle can be traced back to the Scottish settlers who arrived during this period. These emigrants had provided their own food for the voyage to Canada, and in some cases brought a good milch cow to provide fresh milk on the voyage. She would be disposed of on landing, at Montreal or in the eastern part of Upper Canada. This accounts for the early predominance of Ayrshires in Eastern Ontario. Thus to the period 1830-45 belongs the first foundation of the pure-bred stock industry.

It was in this period also that the first signs appear of improved farm implements and labour-saving machinery. Ploughs of improved pattern, lighter and more effective, were being made. Land rollers and harrows made in the factory began to take the place of the home-made articles. Crude threshing machines, clover-seed cleaners, root-cutters, and a simple but heavy form of hay-rake came into use. The mowing machine and the reaper were making their appearance in Great Britain and the United States, but they had not yet reached Upper Canada.

The organization of agricultural societies in the various districts, and the great impetus given to the keeping of good stock, led in 1843 to the suggestion that a provincial organization would be of benefit to the farming industry. In the

neighbouring State of New York a similar organization had been in existence since 1832 and successful State fairs had been held, which some of the more prominent farmers of Upper Canada had visited. An agricultural paper called the *British American Cultivator* had been established in York, and through this paper, in letters and editorials, the idea of a provincial association was advocated. For three years the discussion proceeded, until finally, in 1846, there was organized the Provincial Agricultural Association and Board of Agriculture for Canada West, composed of delegates from the various district societies. The result was that the first provincial exhibition was held in Toronto on October 21 and 22 of that year. The old Government House at the south-western corner of King Street and Simcoe Street, then empty, was used for the exhibits, and the stock and implements were displayed in the adjoining grounds. The Canada Company gave a contribution of \$200, eight local societies made donations, about \$280 was secured as gate money, and 297 members paid subscriptions. Premiums were paid to the amount of \$880, the bulk of which went to live stock; books, which cost about \$270, were given as prizes; and there was left a cash balance on hand of \$400. A ploughing match was held, and on the evening of the first day a grand banquet was given, attended by the officers and directors and by some of the leading citizens of Toronto. Among the speakers at this banquet were Chief Justice Robinson and Egerton Ryerson, superintendent of education.

ORGANIZED AGRICULTURE, 1846-67

The organization of this provincial association fittingly introduces another era in agricultural growth. It is to be noted that this provincial organization was a self-created body; it drew at first no government funds direct. It commended itself to the people, for on July 28, 1847, the provincial parliament in session at Montreal passed an act incorporating it under the name of the Agricultural Association of Upper Canada, and in the charter named as members a number of the leading citizens of the province.

It was governed by a board of directors, two of whom were chosen annually by each district agricultural society. The objects set forth were the improvement of farm stock and produce, the improvement of agricultural implements, and the encouragement of domestic manufactures, of useful inventions applicable to agricultural or domestic purposes, and of every branch of rural and domestic economy. Out of this provincial association came all the further agricultural organizations of a provincial nature, and ultimately, some forty years later, the Ontario department of Agriculture.

The second provincial exhibition was held at Hamilton in 1847, and Lord Elgin, the governor-general, was in attendance. He was also a generous patron, for his name appears as a donor of \$100. The address which he delivered at the banquet has been preserved in the published records and is copiously marked with cheers and loud applause.

The third exhibition was held at Cobourg in 1848. The official report of the exhibits indicates that pure-bred stock was rapidly increasing and improving in quality; but the most significant paragraph is that dealing with implements, and this is well worth quoting in full.

Of implements of Canada make, the Show was deficient; and we were much indebted to our American neighbours for their valuable aid on this occasion. A large number of ploughs, straw-cutters, drills, cornshellers, churns, etc., etc., were brought over by Messrs Briggs & Co. of Rochester, Mr Emery of Albany, and a large manufacturing firm near Boston. Mr Bell of Toronto exhibited his excellent plough, straw-cutter, and reaping machine. The first prize for the latter article was awarded to Mr Helm of Cobourg for the recent improvements which he has effected. Mr Clark of Paris exhibited his one-horse thrashing-mill, which attracted much attention.

At the fourth exhibition, held at Kingston in 1849, the show of implements was much more extensive, and comment was made on the improvement of articles of home manufacture. At this meeting Professor J. F. W. Johnson, of Edinburgh, who was making a tour of North America, was present.

The address of the president, Henry Ruttan of Cobourg, is a most valuable reference article descriptive of the agricultural progress of the province from the first settlements in 1783 to the time of the exhibition. Ruttan was a loyalist's son, and, from his own personal knowledge, he described the old plough that was given by the government to each of the first settlers.

It consisted of a small iron socket, whose point entered by means of a dove-tailed aperture into the heel of the coulter, which formed the principal part of the plough, and was in shape similar to the letter L, the shank of which went through the wooden beam, and the foot formed the point which was sharpened for operation. One handle and a plank split from the side of a winding block of timber, which did duty for the mould-board, completed the implement. Besides provisions for a year, I think each family had issued to them a plough-share and coulter, a set of dragg-teeth, a log chain, an axe, a saw, a hammer, a bill hook and a grubbing hoe, a pair of hand-irons and a cross-cut saw amongst several families, and a few other articles.

He then refers to the large number of implements then being pressed upon the farmers, until 'they have almost become a nuisance to the farmer who desires to purchase a really useful article.' All of which indicates that a distinctive feature of the period beginning with 1846 was the introduction and rapid extension of improved farm machinery.

A few words as to the reaping machine, which contributed more than any other modern implement to the development of agriculture in the past century, may not be out of place. Various attempts had been made at producing a machine to supersede the sickle, the scythe, and the cradle before the Rev. Patrick Bell, in 1826, presented his machine to the Highland Agricultural Society of Scotland for its examination. Bell's machine was fairly successful, and one was then in operation on the farm of his brother, Inch-Michael, in the Carse of Gowrie. One set of knives was fixed, another set worked above and across these like the blades of a pair of scissors. The grain fell on an endless cloth which carried and deposited

the heads at the side of the machine. A horse pushed it forward and kept all parts in motion. It was simple, and, we are told, harvested twelve acres in a day. This was in 1826. In the *New York Farmer and American Gardener's Magazine* for 1834 may be found the descriptions and illustrations of Obed Hussey's grain-cutter and Cyrus H. M^cCormick's 'improved reaping-machine.' The question has been raised as to whether either of these United States inventions owed anything to the earlier production of Patrick Bell. It was, of course, the improved United States reaping machines that found their way into Upper Canada shortly after the organization of the Provincial Agricultural Association. Our interest in this matter is quickened by the fact that the Rev. Patrick Bell, when a young man, was for some time a tutor in the family of a well-to-do farmer in the county of Wellington, and there is a tradition that while there he carried on some experiments in the origination of his machine. The suggestion of a 'mysterious visitor' from the United States to the place where he was experimenting is probably mere conjecture.

This period, 1846 to 1867, was one of rapid growth in population. The free-grant land policy of the government was a great attraction for tens of thousands of people in the British Isles, who were impelled by social unrest, failure of crops, and general stagnation in the manufacturing industries to seek new homes across the sea. In the twenty years referred to the population more than doubled, and the improved lands of the province increased fourfold. The numbers of cattle and sheep about doubled, and the wheat production increased about threefold.

Towards the latter part of the period a new agricultural industry came into existence—the manufacture of cheese in factories. It was in New York State that the idea of co-operation in the manufacture of cheese was first attempted. There, as in Canada West, it had been the practice to make at home from time to time a quantity of soft cheese, which, of course, would be of variable quality. To save labour, a proposition was made to collect the milk from several farms and have the cheese made at one central farm. The success

of this method soon became known and small factories were established. In 1863 Harvey Farrington came from New York State to Canada West and established a factory in the county of Oxford, about the same time that a similar factory was established in the county of Missisquoi, Quebec. Shortly afterwards factories were built in Hastings County, and near Brockville, in Leeds County. Thus began an industry that had a slow advance for some fifteen years, but from 1880 spread rapidly, until the manufacture of cheese in factories became one of the leading provincial industries. The system followed is a slight modification of the Cheddar system, which takes its name from one of the most beautiful vales in the west of England. Its rapid progress has been due to the following circumstances: Ontario, with her rich grasses, clear skies, and clean springs and streams, is well adapted to dairying; large numbers of her farmers came from dairy districts in the mother country; the co-operative method of manufacture tends to produce a marketable article that can be shipped and that improves with proper storage; Great Britain has proved a fine market for such an article; and the industry has for over thirty years received the special help and careful supervision and direction of the provincial and Dominion governments.

During this period we note the voluntary organization of the Ontario Fruit-Growers' Association, a fact which alone would suggest that the production of fruit must have been making progress. The early French settlers along the Detroit River had planted pear trees or grown them from seed, and a few of these sturdy, stalwart trees, over a century old, still stand and bear some fruit. Mrs Simcoe, in her *Journal*, July 2, 1793, states: 'We have thirty large May Duke cherry trees behind the house and three standard peach trees which supplied us last Autumn for tarts and desserts during six weeks, besides the numbers the young men eat.' This was at Niagara. The records of the agricultural exhibitions indicate that there was a gradual extension of fruit-growing. Importations of new varieties were made, Rochester, in New York State, apparently being the chief place from which nursery stock was obtained. Here and there through the

province gentlemen having some leisure and the skill to experiment were beginning to take an interest in their gardens and to produce new varieties. On January 19, 1859, a few persons met in the board-room of the Mechanics' Hall at Hamilton and organized a fruit-growers' association for Upper Canada. Judge Campbell was elected president; Dr Hurlbert, first vice-president; George Leslie, second vice-president; Arthur Harvey, secretary. The members of this association introduced new varieties and reported on their success. They were particularly active in producing such new varieties as were peculiarly suitable to the climate. For nine years they maintained their organization and carried on their work unaided and unrecognized officially.

To this period belongs also the first attempts at special instruction in agriculture and the beginning of an agricultural press. Both are intimately connected with the association, already referred to, that had been organized in 1846 by some of the most progressive citizens.

For four years the Provincial Association carried on its work and established itself as a part of the agricultural life of Canada West. In 1850 the government stepped in and established a board of agriculture as the executive of the association. Its objects were set out by statute and funds were to be provided for its maintenance. The new lines of work allotted to it were to collect agricultural statistics, prepare crop reports, gather information of general value and to present the same to the legislature for publication, and to co-operate with the provincial university in the teaching of agriculture and the carrying on of an experimental or illustrative farm. Professor George Buckland was appointed to the chair of agriculture in the university in January 1851 and an experimental farm on a small scale was laid out on the university grounds. Professor Buckland acted also as secretary to the board until 1858, when he resigned and was succeeded by Hugh C. Thomson. He continued his work for some years at the university, and was an active participant in all agricultural matters up to the time of his death in 1885.

Provision having been made for agricultural instruction at the university, the board in 1859 decided to establish a

course in veterinary science, and at once got into communication with Professor Dick of the Veterinary College at Edinburgh, Scotland. In 1862 a school was opened in Toronto under the direction of Professor Andrew Smith, recently arrived from Edinburgh.

The *British American Cultivator* was established in 1841 by Eastwood and Co. and W. G. Edmundson, with the latter as editor. It gave place in 1849 to the *Canadian Agriculturist*, a monthly journal edited and owned by George Buckland and William M^cDougall. This was the official organ of the board till the year 1864, when George Brown began the publication of the *Canada Farmer* with the Rev. W. F. Clark as editor-in-chief and D. W. Beadle as horticultural editor. The board at once recognized it, accepted it as their representative, and the *Canadian Agriculturist* ceased publication in December 1863.

The half-century of British immigration, 1816 to 1867, had wrought a wonderful change. From a little over a hundred thousand the population had grown to a million and a half; towns and cities had sprung into existence; commercial enterprises had taken shape; the construction of railways had been undertaken; trade had developed along new lines; the standards of living had materially changed; and great questions, national and international, had stirred the people and aroused at times the bitterest political strife. The changed standards of living can best be illustrated by an extract from an address delivered in 1849 by Sheriff Ruttan. Referring to the earlier period, he said:

Our food was coarse but wholesome. With the exception of three or four pounds of green tea a year for a family, which cost us three bushels of wheat per pound, we raised everything we ate. We manufactured our own clothes and purchased nothing except now and then a black silk handkerchief or some trifling article of foreign manufacture of the kind. We lived simply, yet comfortably—envied no one, for no one was better off than his neighbour. Until within the last thirty years, one hundred bushels of wheat, at 2s. 6d. per bushel, was quite sufficient to give in exchange for all the articles of foreign manufacture consumed by a large family. . . . The

old-fashioned home-made cloth has given way to the fine broadcloth coat; the linsey-woolsey dresses of females have disappeared and English and French silks been substituted; the nice clean-scoured floors of the farmers' houses have been covered by Brussels carpets; the spinning wheel and loom have been superseded by the piano; and in short, a complete revolution in all our domestic habits and manners has taken place—the consequences of which are the accumulation of an enormous debt upon our shoulders and its natural concomitant, political strife.

Students of Canadian history will at once recall the story of the Rebellion of 1837, the struggle for constitutional government, the investigation by Lord Durham, the repeal of the preferential wheat duties in England, the agitation for Canadian independence, and other great questions that so seriously disturbed the peace of the Canadian people. They were the 'growing pains' of a progressive people. The Crimean War, in 1854-56, gave an important though temporary boom to Canadian farm products. Reciprocity with the United States from 1855 to 1866 offered a profitable market that had been closed for many years. Then came the close of the great civil war in the United States and the opening up of the cheap, fertile prairie lands of the Middle West to the hundreds of thousands of farmers set free from military service. This westward movement was joined by many farmers from Ontario; there was a disastrous competition in products, and an era of agricultural depression set in just before Confederation. It was because of these difficulties that Confederation became a possibility and a necessity. The new political era introduced a new agricultural period, which began under conditions that were perhaps as unfavourable and as unpromising as had been experienced for over half a century.

THE GROWTH OF SCIENTIFIC FARMING, 1867-88

The period that we shall now deal with begins with Confederation in 1867 and extends to 1888, when a provincial

minister of Agriculture was appointed for the first time and an independent department organized.

From 1792 to 1841 what is now Ontario was known as Upper Canada ; from 1841 to 1867 it was part of the United Province of Canada, being known as Canada West to distinguish it from Quebec or Canada East. In 1867, however, it resumed its former status as a separate province, but with the new name of Ontario. In the formation of the government of the province agriculture was placed under the care of a commissioner, who, however, held another portfolio in the cabinet. John Carling was appointed commissioner of Public Works and also commissioner of Agriculture. On taking office Carling found the following agricultural organizations of the province ready to co-operate with the government : sixty-three district agricultural societies, each having one or more branch township societies under its care, and all receiving annual government grants of slightly over \$50,000 ; a provincial board of agriculture, with its educational and exhibition work ; and a fruit-growers' association, now for the first time taken under government direction and given financial assistance.

One extract from the commissioner's first report will serve to show the condition of agriculture in Ontario when the Dominion was born. ' It is an encouraging fact that during the last year in particular mowers and reapers and labour-saving implements have not only increased in the older districts, but have found their way into new ones, and into places where they were before practically unknown. This beneficial result has, no doubt, mainly arisen from the difficulty, or rather in some cases impossibility, of getting labour at any price.' It would appear, therefore, that the question of shortage of farm labour, so much complained of in recent years, has been a live one for forty years and more.

In the second report of the commissioner (1869) special attention was directed to the question of agricultural education, and the suggestion was made that the agricultural department of the university and the veterinary college might give some instruction to the teachers at the normal school. In the following year, however, an advanced step was taken.

It was noted that Dr Ryerson was in sympathy with special agricultural teaching and had himself prepared and published a text-book on agriculture. The suggestion was made that the time had arrived for a school of practical science. At the same time Ryerson had appointed the Rev. W. F. Clark, the editor of the *Canada Farmer*, to visit the Agricultural department at Washington and a few of the agricultural colleges of the United States, and to collect such practical information as would aid in commencing something of an analogous character in Ontario. It will thus be seen that the two branches of technical training—the School of Practical Science and the Agricultural College—were really twin institutions, originating, in the year 1870, in the dual department of Public Works and Agriculture. These institutions were the outcome of the correlation of city and country industries, which were under the fostering care of the Agriculture and Arts Association, as the old provincial organization was now known. The School of Practical Science, it may be noted, is now incorporated with the provincial university, and the Agricultural College is affiliated with it.

There were at that time two outstanding agricultural colleges in the United States, that of Massachusetts and that of Michigan. These were visited, and, based upon the work done at these institutions, a comprehensive and suggestive report was compiled. Immediate action was taken upon the recommendations of this report, and a tract of land, six hundred acres in extent, was purchased at Mimico, seven miles west of Toronto. Before work could be commenced, however, the life of the legislature closed and a new government came into office in 1871 with Archibald M^cKellar as commissioner of Agriculture and Arts. New governments feel called upon to promote new measures. There were rumours and suggestions that the soil of the Mimico farm was productive of thistles and better adapted to brick-making than to the raising of crops. Also the location was so close to Toronto that it was feared that the attractions of the city would tend to make the students discontented with country life. For various reasons a change of location was deemed desirable, and a committee of farmer members of the legislature was

appointed. Professor Miles, of the Michigan Agricultural College, was engaged to give expert advice ; other locations were examined, and finally Moreton Lodge Farm, near Guelph, was purchased. After some preliminary difficulties, involving the assistance of a sheriff or bailiff, possession was obtained, and the first class for instruction in agricultural science and practice, consisting of thirty-one pupils in all, was opened on June 1, 1874, with William Johnston as rector or principal. Thus was established the Ontario School of Agriculture, now known as the Ontario Agricultural College. Its annual enrolment has grown to over fifteen hundred, and it is now recognized as the best-equipped and most successful institution of its kind in the British Empire. Its development along practical lines and its recognition as a potent factor in provincial growth were largely due to Dr James Mills, who was appointed president of the college in 1879, and filled that position until January 1904, when he was appointed to the Dominion Board of Railway Commissioners. Under his direction farmers' institutes were established in Ontario in 1884. Dr Mills was succeeded by Dr G. C. Creelman as president.

The next important step in agricultural advancement was the appointment in 1880 of the Ontario Agricultural Commission 'to inquire into the agricultural resources of the Province of Ontario, the progress and condition of agriculture therein and matters connected therewith.' The commission consisted of S. C. Wood, then commissioner of Agriculture (chairman), Alfred H. Dymond (secretary), and sixteen other persons representative of the various agricultural interests, including the president and ex-president of the Agricultural and Arts Association, Professor William Brown of the Agricultural College, the master of the Dominion Grange, the president of the Entomological Society, and two members of the legislature, Thomas Ballantyne and John Dryden. In 1913 there were but two survivors of this important commission, J. B. Aylesworth of Newburg, Ont., and Dr William Saunders, who, after over twenty years' service as director of the Dominion Experimental Farms, had resigned office in 1911.

All parts of the province were visited and information was gathered from the leading farmers along the lines laid down in the royal commission. In 1881 the report was issued in five volumes. It was without doubt the most valuable commission report ever issued in Ontario, if not in all Canada. Part of it was reissued a second and a third time, and for years it formed the Ontario farmer's library. Even to this day it is a valuable work of reference, containing as it does a vast amount of practical information and forming an invaluable source of agricultural history.

The first outcome of this report was the establishment, in 1882, by the government of the Ontario bureau of Industries, an organization for the collection and publication of statistics in connection with agriculture and allied industries. Archibald Blue, who now occupies the position of chief officer of the census and statistics branch of the Dominion service, was appointed the first secretary of the bureau.

Agriculture continued to expand, and associations for the protection and encouragement of special lines increased in number and in importance. Thus there were no fewer than three vigorous associations interested in dairying: the Dairy-men's Association of Eastern Ontario, and the Dairymen's Association of Western Ontario, which were particularly interested in the cheese industry, and the Ontario Creameries Association, which was interested in butter manufacture. There were poultry associations, a beekeepers' association, and several live stock associations. From time to time the suggestion was made that the work of these associations, and that of the Agriculture and Arts Association and of the bureau of Industries, should be co-ordinated, and a strong department of Agriculture organized under a minister of Agriculture holding a distinct portfolio in the Ontario cabinet. Provision for this was made by the legislature in 1888, and in that year Charles Drury was appointed the first minister of Agriculture. The bureau of Industries was taken as the nucleus of the department, and Archibald Blue, the secretary, was appointed deputy minister.

We have referred to the reaction that took place in Ontario agriculture after the close of the American Civil War and the

abrogation of the reciprocity treaty. The high prices of the Crimean War period had long since disappeared, the market to the south had been narrowed, and the Western States were pouring into the East the cheap grain products of a rich virgin soil. Agricultural depression hung over the province for years. Gradually, however, through the early eighties the farmers began to recover their former prosperous condition, sending increasing shipments of barley, sheep, horses, eggs, and other commodities to the cities of the Eastern States, so that at the close of the period to which we are referring agricultural conditions were of a favourable and prosperous nature.

THE MODERN PERIOD, 1888-1912

In 1888 a new period in Ontario's agricultural history begins. The working forces of agriculture were being linked together in the new department of Agriculture. Charles Drury, the first minister of Agriculture, held office until 1890, being succeeded by John Dryden, who continued in charge of the department until 1905, when a conservative government took the place of the liberal government that had been in power since 1871.

Two factors immediately began to play a most important part in the agricultural situation: the opening up of the north-western lands by the completion of the Canadian Pacific Railway in 1886, and the enactment, on October 6, 1890, of the McKinley high tariff by the United States. The former attracted Ontario's surplus population, and made it no longer profitable or desirable to grow wheat in the province for export; the latter closed the doors to the export of barley, live stock, butter, and eggs. The situation was desperate; agriculture was passing through a period of most trying experience. Any other industry than that of agriculture would have been bankrupted. The only hope of the Ontario farmer now was in the British market. The sales of one Ontario product, factory cheese, had been steadily increasing in the great consuming districts of England and Scotland, and there was reason to believe that other products

might be sold to equal advantage. Dairying was the one line of agricultural work that helped to tide over the situation in the early nineties. The methods that had succeeded in building up the cheese industry must be applied to other lines, and all the organized forces must be co-ordinated in carrying this out. This was work for a department of Agriculture, and the minister of Agriculture, John Dryden, who guided and directed this co-operation of forces and made plans for the future growth and expansion of agricultural work, was an imperialist indeed who, in days of depression and difficulty, directed forces and devised plans that not only helped the agricultural classes to recover their prosperity, but also made for the strengthening of imperial ties and the working out of national greatness.

The British market presented new conditions, new demands. The North-West could send her raw products in the shape of wheat; Ontario must send finished products—beef, bacon, cheese, butter, fruit, eggs, and poultry—these and similar products could be marketed in large quantities if only they could be supplied of right quality. Transportation of the right kind was a prime necessity. Lumber, wheat, and other rough products could be handled without difficulty, but perishable goods demanded special accommodation. This was a matter belonging to the government of Canada, and to it the Dominion department of Agriculture at once began to give attention. The production of the goods for shipment was a matter for provincial direction. Gradually the farmers of the province adapted themselves to the new conditions and after a time recovered their lost ground. General prosperity came in sight again about 1895. For several years after this the output of beef, bacon, and cheese increased steadily, and the gains made in the British market more than offset the loss of the United States market. It was during the five years after 1890 that the farmers suffered so severely while adjusting their work to the new conditions. With these expanding lines of British trade products, the values of stock, implements, and buildings made steady advance, and in 1901 the total value of all farm property in the province crossed the billion dollar mark. Since

that year the annual increase in total farm values has been approximately forty million dollars. The following statement of total farm values in Ontario, as compiled by the Ontario bureau of Industries, the statistical branch of the department of Agriculture, is very suggestive :

Total Farm Values

1885 . . .	\$958,159,740	1895 . . .	\$931,989,574
1886 . . .	989,497,911	1896 . . .	910,291,623
1887 . . .	975,292,214	1897 . . .	905,093,613
1888 . . .	981,368,094	1898 . . .	923,022,420
1889 . . .	982,210,664	1899 . . .	947,513,360
1890 . . .	970,927,035	1900 . . .	974,814,931
1891 . . .	971,886,068	1901 . . .	1,001,323,296
1892 . . .	979,977,244	1902 . . .	1,044,894,332
1893 . . .	970,361,070	1906 . . .	1,189,119,120
1894 . . .	954,395,507	1909 . . .	1,241,019,109

From the above table it will be seen that the closing of the United States markets in 1890 was followed by a depreciation in general farm values which lasted until 1898, when the upward movement that has continued ever since set in.

And now let us see how the population was changing, as to its distribution between rural and urban, during these years. First, we shall give the assessed population.

	Rural	Urban
1884	1,117,880	636,187
1885	1,126,554	658,406
1890	1,117,533	800,041
1895	1,109,013	848,377
1900	1,094,246	919,614
1905	1,059,379	1,042,881
1909	1,049,240	1,240,198

The Canadian Pacific Railway opened up the wheat lands of the West in 1886. At that time the rural population was nearly double the urban ; in 1905 they were about equal ; and six years later the urban population of Ontario exceeded the rural.

The Dominion census figures are as follows :

	Rural	Urban
1911	1,194,785	1,328,489
1901	<u>1,246,969</u>	<u>935,978</u>
Increase	392,511
Decrease	52,184

It will thus be seen that during the past twenty-five years there has been a steady increase in the consumers of food products in Ontario and a slight decrease in the producers of the same. The surplus population of the farms has gone to the towns and cities of Ontario and to the western provinces. Now for a moment let us follow these people to the West. Many of them have gone on the land to produce wheat. Wheat for the European market has been their principal product, therefore they in turn have become consumers of large quantities of food that they do not themselves produce but must obtain from farmers elsewhere. But not all who have gone West have become farmers. The Dominion census of 1911 gives the following statement of population for the provinces and districts west of Lake Superior :

	Rural	Urban
1911	1,059,681	681,216
1901	<u>446,050</u>	<u>199,467</u>
Increase	613,631	481,749

The western provinces are generally considered to be almost purely agricultural, and yet the percentage increase of urban population has been nearly double the percentage increase of rural population. And this rapidly growing urban population also has demanded food products. Their own farmers grow wheat and oats and barley. British Columbia produces fruit for her own people and some surplus for the prairie provinces. There is some stock-raising, but the rapid extension of wheat areas has interfered with the great stock ranches. From out of the Great West, therefore, there has come an increasing demand for many food products. Add to this the growing home market in Ontario, and, keeping in mind that

the West can grow wheat more cheaply than Ontario, it will be understood why of recent years the Ontario farmer has been compelled to give up the production of wheat for export. His line of successful and profitable work has been in producing to supply the demands of his own growing home market, and the demands of the rapidly increasing people of the West, both rural and urban, and also to share in the insatiable market of Great Britain. Another element of more recent origin has been the small but very profitable market of Northern Ontario, where lumbering, mining, and railroad construction have been so active in the past five or six years.

The result of all this has been a great increase in fruit production. Old orchards have been revived and new orchards have been set out. The extension of the canning industry also is most noticeable, and has occasioned the production of fruits and vegetables in enormous quantities. Special crops such as tobacco, beans, and sugar beets are being grown in counties where soil and climatic conditions are favourable. The production of poultry and eggs is also receiving more attention each succeeding year. The growth of cities is creating an increasing demand for milk, and the production of factory-made butter and cheese is also increasing, as the following figures for Ontario from the Dominion census prove :

		Butter		Cheese
1900	.	.	7,559,542 lb.	. 131,967,612 lb.
1910	.	.	13,699,153 „	. 157,631,883 „

For the past ten or twelve years the farmers of Ontario have been slowly adjusting their work to the new situation, and the transition is continuing. While in some sections farms are being enlarged so as to permit the more extensive use of labour-saving machinery and the more economical handling of live stock, in other sections, particularly in counties adjacent to the Great Lakes, large farms are being cut up into smaller holdings and intensive production of fruits and vegetables is now the practice. This, of course, results in a steady increase in land values and is followed by an increase in rural population. The farmers of Ontario are putting forth every effort to meet the demands for food products. The one great difficulty that they have encoun-

tered has been the scarcity of farm labour. Men have come from Europe by the tens of thousands, but they have been drawn largely to the growing towns and cities by the high wages offered in industrial lines ; and the West, the ' Golden West ' as it is sometimes called, has proved an even stronger attraction. It seems rarely to occur to the new arrival that the average farm in Ontario could produce more than a quarter section of prairie land. Signs, however, point to an increase in rural population, through the spread of intensive agriculture.

Before referring to the methods of instruction and assistance provided for the developing of this new agriculture in Ontario, reference should be made to one thing that is generally overlooked by those who periodically discover this rapid urban increase, and who moralize most gloomily upon a movement that is to be found in nearly every progressive country of the civilized world. In the days of early settlement the farmer and his family supplied nearly all their own wants. The farmer produced all his own food ; he killed his own stock, salted his pork, and smoked his hams. His wife was expert in spinning and weaving, and plaited the straw hats for the family. The journeyman shoemaker dropped in and fitted out the family with boots. The great city industries were then unknown. The farmer's wife in those days was perhaps the most expert master of trades ever known. She could spin and weave, make a carpet or a rug, dye yarns and clothes, and make a straw hat or a birch broom. Butter, cheese, and maple sugar were products of her skill, as well as bread, soap, canned fruits, and home-made wine. In those days the farm was a miniature factory or combination of factories. Many, in fact most, of these industries have gradually moved out of the farm home and have been concentrated in great factories ; and the pedlar with his pack has disappeared under a shower of catalogues from the departmental city store. In other words, a large portion of work once done upon the farm and at the country cross-roads has been transferred to the town and city, and this, in some part, explains the modern movement citywards—there has been a transference from country to city not

only of people but also of industries. Whether this has been in the interests of the people is another question, but the process is still going on, and what further changes may take place it is difficult to determine and unwise to forecast.

And now let us see what agencies and organizations have been used in the development of the special lines of agriculture since the creation of the department in 1888. We have stated that the Agriculture and Arts Association had been for many years the directing force in provincial agricultural organization. It held an annual provincial exhibition; it issued the diplomas to the graduates of the Ontario Veterinary College; and it controlled the various live stock associations that were interested in the registration of stock. Shortly after 1888 legislation was enacted transferring the work to the department of Agriculture. The place for holding the provincial exhibition was changed from year to year. In 1879 a charter was obtained by special act for the Toronto Industrial Exhibition, the basis of which was the Toronto Electoral Agricultural Society. Out of this came the annual Toronto Exhibition, now known as the Canadian National Exhibition, and the governmental exhibition was discontinued.

The Ontario Veterinary College was a privately owned institution, though the diplomas were issued by the Agriculture and Arts Association. The royal commission appointed in 1905 to investigate the University of Toronto recommended the taking over of this association by the government, and as a result it passed under the control of the department of Agriculture in 1908, and was affiliated with the University of Toronto. Since that time the diploma of Veterinary Surgeon (V.S.) has been issued by the minister of Agriculture, and a supplementary degree of Bachelor of Veterinary Science (B.V.Sc.) has been granted by the university. The taking over of this institution by the government, the resuming by the province of its original prerogative, was accompanied by an enlargement of the course, an extension from two years to three years in the period of instruction, and a strengthening of the faculty. The herd-books or pedigree record books were, in most cases, Canadian, and it was felt that they should be located at the capital of the Dominion.

These have therefore been transferred to Ottawa and are now conducted under Dominion regulations.

The Ontario bureau of Industries was the basis of organization of the department. As other work was added the department grew in size and importance, and the various branches were instituted until there developed a well-organized department having the following subdivisions :

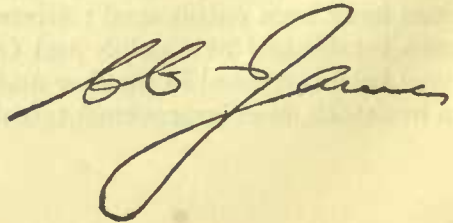
- The Agricultural College,
- The Veterinary College,
- The Agricultural and Horticultural Societies Branch,
- The Live Stock Branch,
- The Farmers' and Women's Institutes Branch,
- The Dairy Branch,
- The Fruit Branch,
- The Statistical Branch,
- The Immigration and Colonization Branch.

Each branch is in charge of a special officer. In addition to the above there is a lot of miscellaneous work, which as it develops will probably be organized into separate branches, such as farm forestry, district representatives, etc.

John Dryden was in 1905 succeeded as minister of Agriculture by Nelson Monteith, who in 1908 was succeeded by J. S. Duff. Under their care the department has grown and expanded, and through their recommendations, year by year, increasing amounts of money have been obtained for the extension of agricultural instruction and the more thorough working out of plans inaugurated in the earlier years of departmental organization.

The history of agricultural work in Ontario in recent years may be put under two heads—expansion of the various organizations and extension of their operations, and the development of what may be called 'field work.' Farmers' institutes and women's institutes have multiplied; agricultural societies now cover the entire province; local horse associations, poultry associations, and beekeepers' associations have been encouraged; winter fairs for live stock have been established at Guelph and Ottawa; dairy instructors have been increased in number and efficiency; short courses in live stock, seed improvement, fruit work, and dairying have

been held ; and farm drainage has received practical encouragement. Perhaps the most important advance of late years has resulted through the appointment of what are known as district representatives. In co-operation with the department of Education, graduates of the Agricultural College have been permanently located in the various counties to study the agricultural conditions and to initiate and direct any movement that would assist in developing the agricultural work. These graduates organize short courses at various centres, conduct classes in high schools, assist the farmers in procuring the best seed, advise as to new lines of work, assist in drainage, supervise the care of orchards—in short, they carry the work of the Agricultural College and of the various branches of the department right to the farmer, and give that impetus to better farming which can come only from personal contact. The growth of the district representative system has been remarkable : it was begun in seven counties in 1907, by 1910 fifteen counties had representatives, and in 1914 no fewer than thirty-eight counties were so equipped. At first the farmers distrusted and even somewhat opposed the movement, but the district representative soon proved himself so helpful that the government has found it difficult to comply with the numerous requests for these apostles of scientific farming. Approximately \$125,000 is spent each year on the work by the provincial government, in addition to the \$500 granted annually by the county to each district office. The result of all this is that new and more profitable lines of farming are being undertaken, specializing in production is being encouraged, and Ontario agriculture is advancing rapidly along the lines to which the soils, the climate, and the people are adapted. A study of the history of Ontario agriculture shows many changes in the past hundred years, but at no time has there been so important and so interesting a development as that which took place in the opening decade of the twentieth century.

A handwritten signature in cursive script, reading "B. B. James". The signature is written in dark ink and is positioned in the lower right quadrant of the page.



